



## OFFICE OF SCIENCE & TECHNOLOGY

### Low-Cost Bomb Robots

#### ***Project Description:***

The National Institute of Justice, in collaboration with the Technical Support Working Group (TSWG), sponsored a first of its kind study to define practitioner requirements for bomb robots and to identify any shortfalls in the current generation of bomb robots' ability to meet those requirements.

That study was completed in 2000. The final report is available at: [www.nlectc.org/jpsg/robotassessment/robotassessment.html](http://www.nlectc.org/jpsg/robotassessment/robotassessment.html). Cost was the most critical shortfall of the current generation of commercial robots identified in the study. Only a third of the bomb squads in the United States have robots, because they cost upwards of \$50,000. The NIJ-sponsored study indicated an optimal cost of \$30,000. Using its own funds, EOD Performance of Ottawa, Canada, built a \$30,000 robot--the Vanguard-- to meet the specifications laid out in the report.



***Vanguard  
Robot***

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#### ***Status:***

NIJ and TSWG collaborated in an assessment of the Vanguard system against the requirements in the NIJ-sponsored study. A technical evaluation was conducted by the Battelle Memorial Institute under contract to TSWG. Additionally, fourteen military and civilian bomb squads were provided the robot for operation evaluation. The initial phase of the assessment is completed. The Vanguard performed well. Modifications arising from the findings of the initial phase of the assessment are being incorporated. Modified Vanguards will be provided to agencies participating in the initial assessment for comparative evaluation.

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